AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended) A method of selecting a filter for control of a gamut mapping correction process, including:

determining a filter selection metric in accordance with measured local image activity;

changing filter parameters as a function of the determined filter selection metric; and,

using the changed filter parameters so that luminance feedback in a gamut mapping correction process is in accordance with local image activity.

2. (Original) A method as described in **claim 1**, wherein said local image activity metric varies between low activity, corresponding to flat areas within an image, and high activity, corresponding to strong edge areas with an image.

3. (Original) A method as described in **claim 2**, wherein said image activity corresponds to a data norm of order ρ, given by

$$\text{Activity} = \left[\sum_j (e_i^p - e_j^p) \right]^{\frac{1}{p}}.$$

4. (Original) A method as described in **claim 2**, wherein said image activity corresponds to

$$\frac{1}{m}\left|\sum_{i}(e_i - e_j)\right|.$$

wherein e_i is a luminance error at a target pixel i and e_j is a luminance error at a pixel j within a neighborhood of pixel i, and m is the number of pixels in the neighborhood.

5. (Original) A method as derived in **claim 1** wherein said varied filter parameter is filter size in terms of pixels covered in a single operation thereof.

6. (Original) A method as derived in **claim 1**, wherein the filter selection metric and filter parameters are derived as follows:

computing said activity metric within a small pixel neighborhood neighborhood defined as N_s x N_s

for activity metric values within a predetermined range of activity values, employing a relatively small filter size S_1 x S_1

for activity metric values outside said predetermined range of activity, computing a activity metric a_l over a large pixel neighborhood N_l x N_l

compute the ratio $R = a_l / a_s$

if R is greater than a predetermined threshold, employ a small filter size S_1

if R is less than the said threshold, employ a large filter size S_2 xS_2.

7. (Original) A method as in **claim 6** wherein $N_s = 5$, $N_l = 15$, $S_1 = 5$, and $S_2 = 15$.

8. (Previously Presented) A method of selecting a filter for control of a gamut mapping correction process, comprising:

determining a filter selection metric in accordance with measured local image activity, wherein said local image activity metric varies between low activity, corresponding to flat areas within an image, and high activity, corresponding to strong edge areas with an image, said image activity corresponding to a data norm of order p, given by

$$\text{Activity} = \left[\sum_j (e_i^p - e_j^p)\right]^{\frac{1}{p}}$$; and,

changing filter parameters as a function of the determined filter selection metric.

9. (Previously Presented) A method of selecting a filter for control of a gamut mapping correction process, comprising:

determining a filter selection metric in accordance with measured local image activity, wherein said local image activity metric varies between low activity, corresponding to flat areas within an image, and high activity, corresponding to strong edge areas with an image, said image activity corresponds to

$$\frac{1}{m}\left|\sum_i (e_i - e_j)\right|$$

wherein e_i is a luminance error at a target pixel i and e_j is a luminance error at a pixel j within a neighborhood of pixel i, and m is the number of pixels in the neighborhood; and,

changing filter parameters as a function of the determined filter selection metric.

10. (Previously Presented) A method of selecting a filter for control of a gamut mapping correction process, comprising:

determining a filter selection metric in accordance with measured local image activity metric; and,

changing filter parameters as a function of the determined filter selection metric, the filter selection metric and filter parameters being derived as follows:

computing said image activity metric within a small pixel neighborhood, the neighborhood defined as N_s x N_s

for image activity metric values within a predetermined range of activity values, employing a relatively small filter size S_1 x S_1

for image activity metric values outside said predetermined range of activity, computing an activity metric a_L over a large pixel neighborhood N_l x N_l

compute the ratio $R = a_L / a_s$

if R is greater than a predetermined threshold, employ a small filter size S_1

if R is less than the said threshold, employ a large filter size S_2 xS_2.

11. (Previously Presented) A method as in **claim 10** wherein Ns = 5, Nl = 15, S1 = 5, and S2 = 15.